

National Weather Service

Building a Weather-Ready Nation

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2011: A Year of Extremes

~600 Fatalities

\$50 Billion in Economic Losses



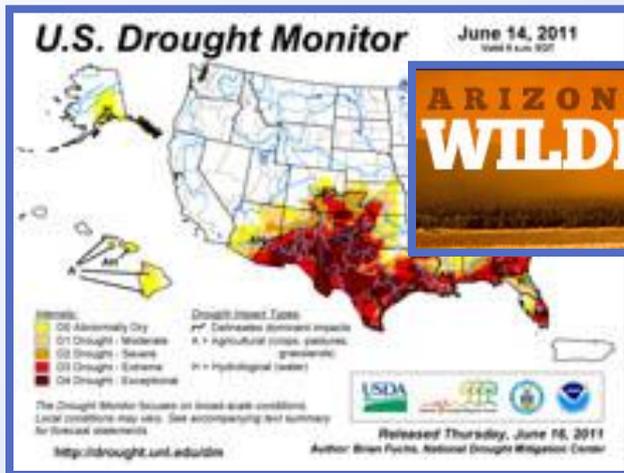
**546 Fatalities from
1,784 Tornadoes**



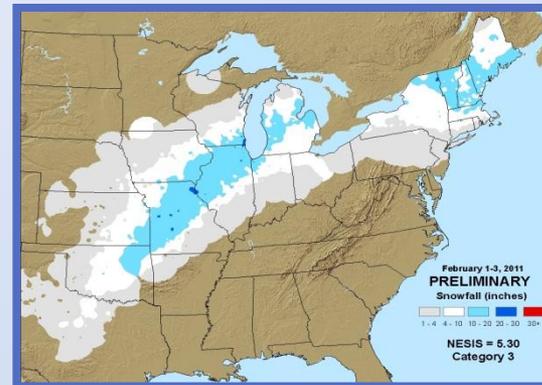
Historic U.S. Floods



Pacific Tsunami



6 Million Acres Burned



Devastating Blizzards



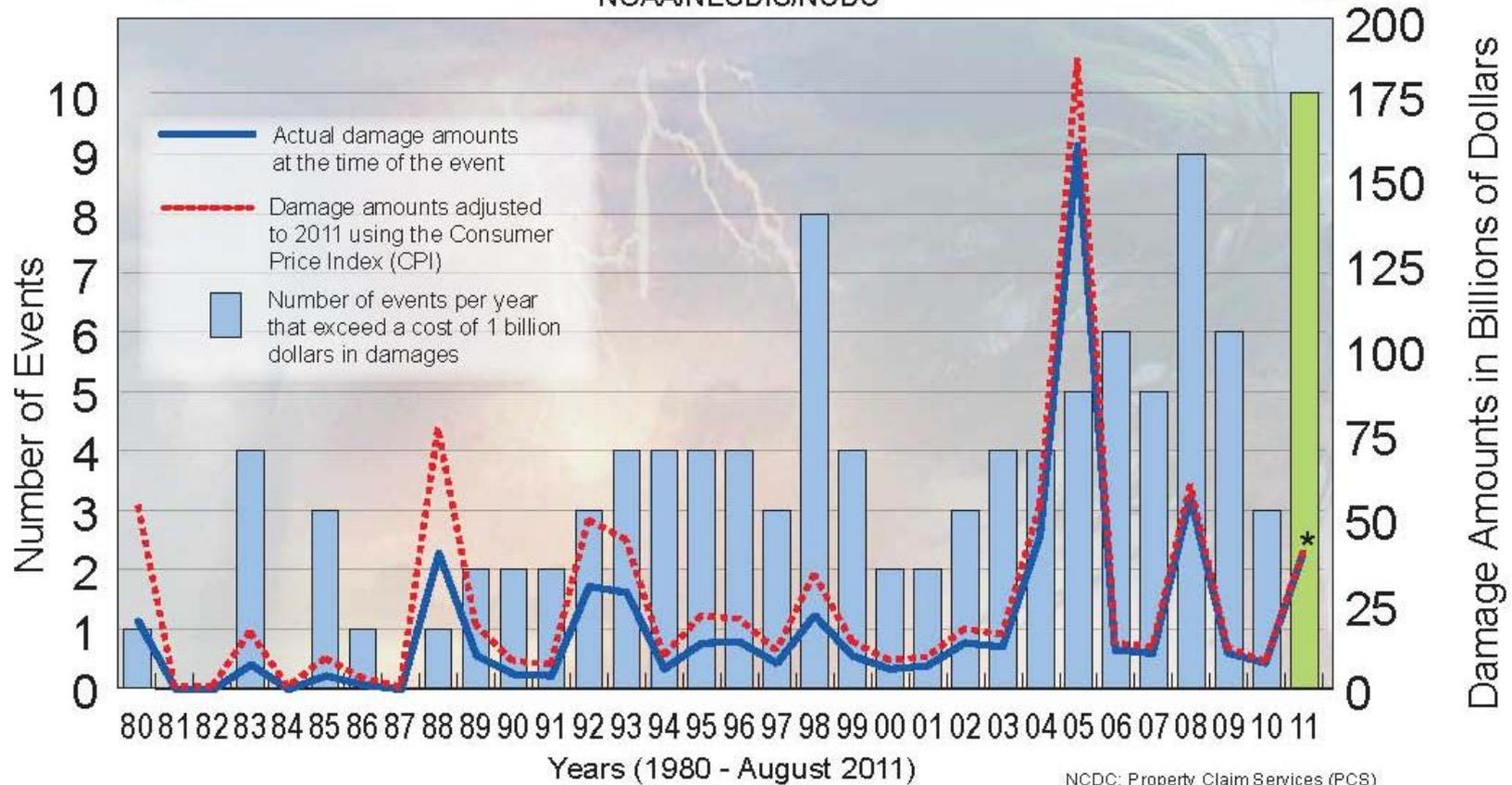
2011: A Year of Extremes



Billion Dollar U.S. Weather/Climate Disasters 1980 - August 2011



NOAA/NESDIS/NCDC



NCDC; Property Claim Services (PCS)

* This damage amount does not take into account the losses from Hurricane Irene

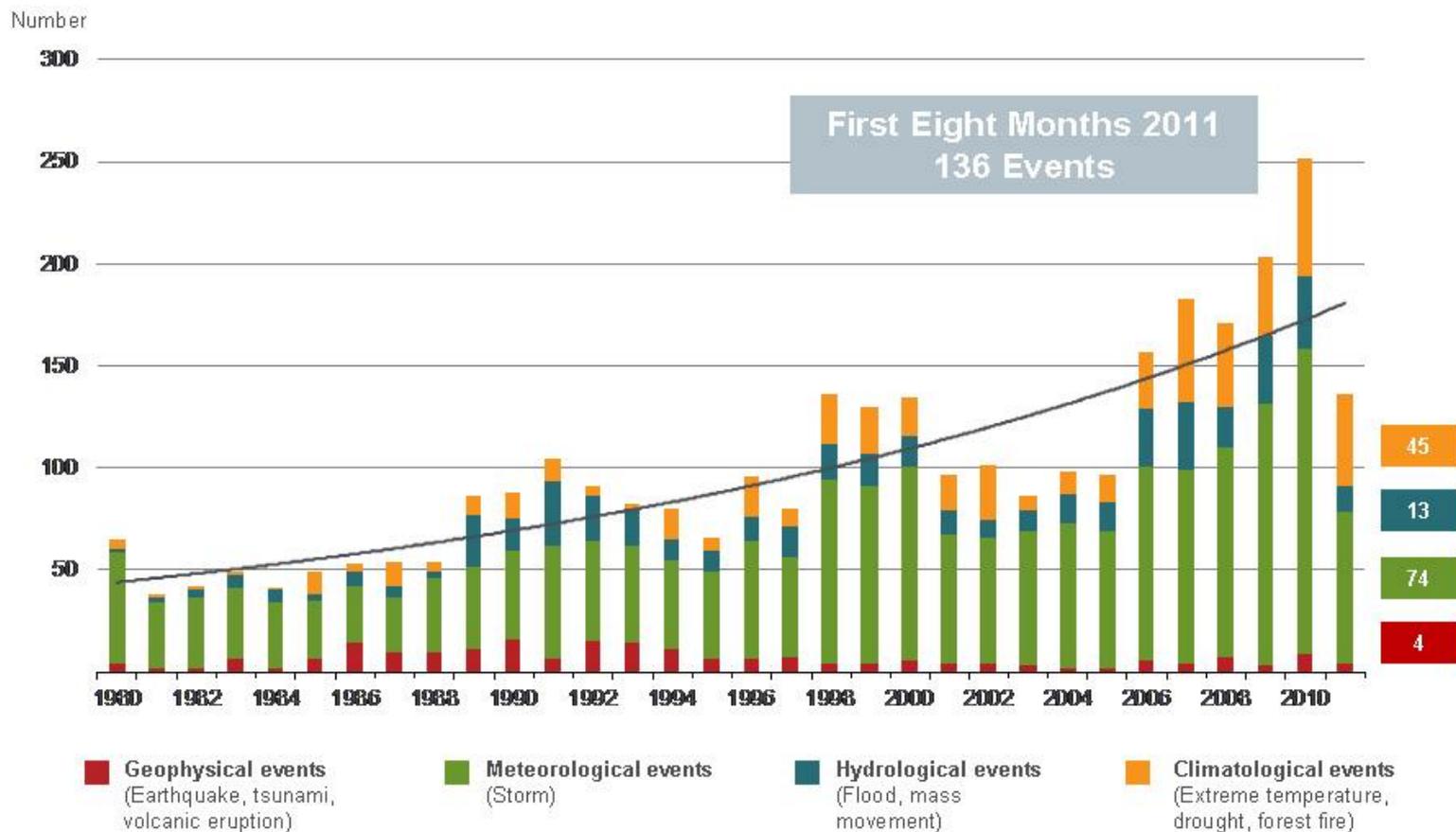
A Changing World

Increased Vulnerability to High-Impact Weather

NatCatSERVICE

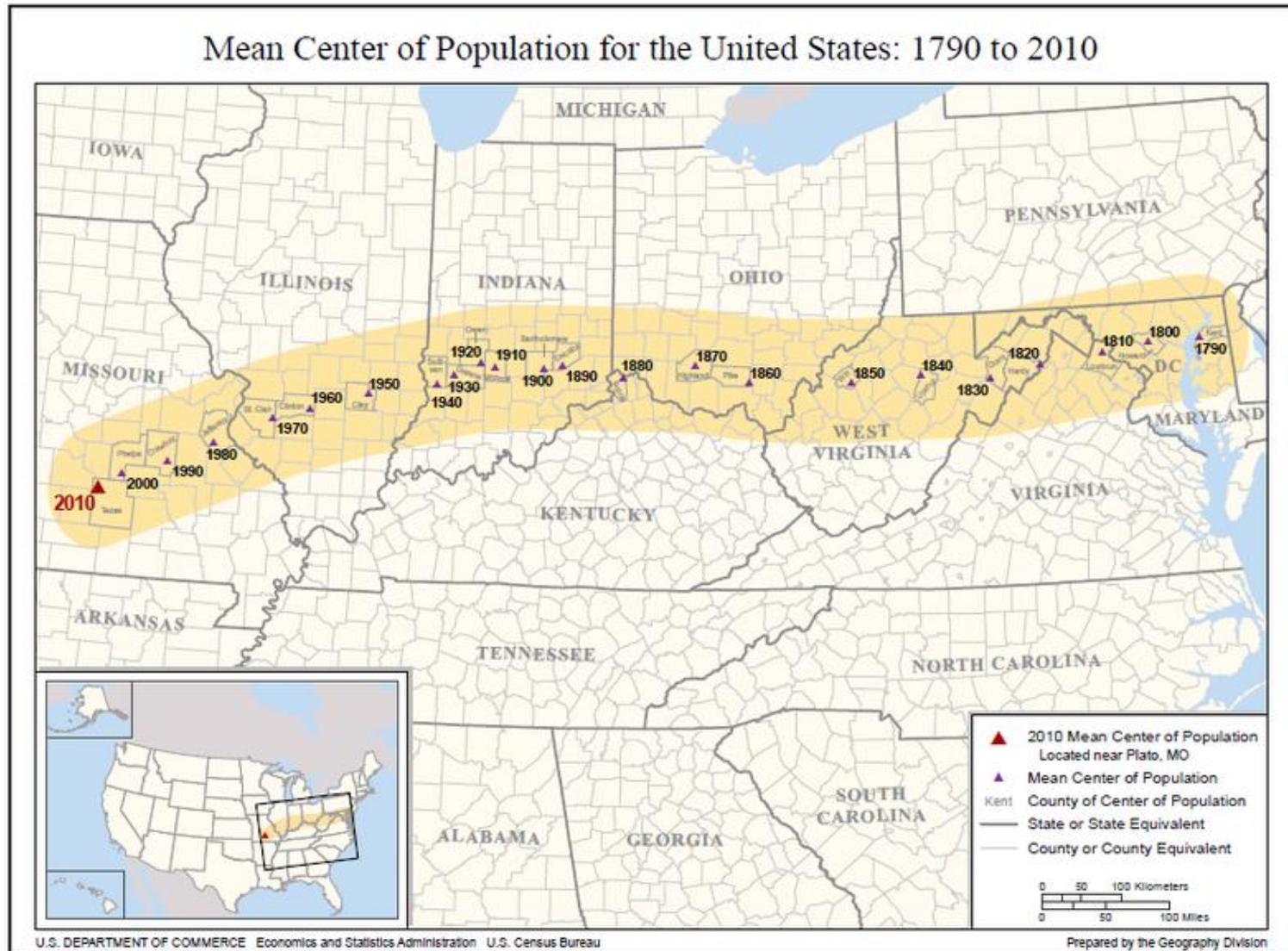
Natural Disasters in the United States, 1980 – 2011

Number of Events (Annual Totals 1980 – 2010 vs. First Eight Months 2011)



Vulnerability: Population Distribution

Westward Move



A Changing World

Weather Impacts on Sectors:

Air Travel Flight Delays

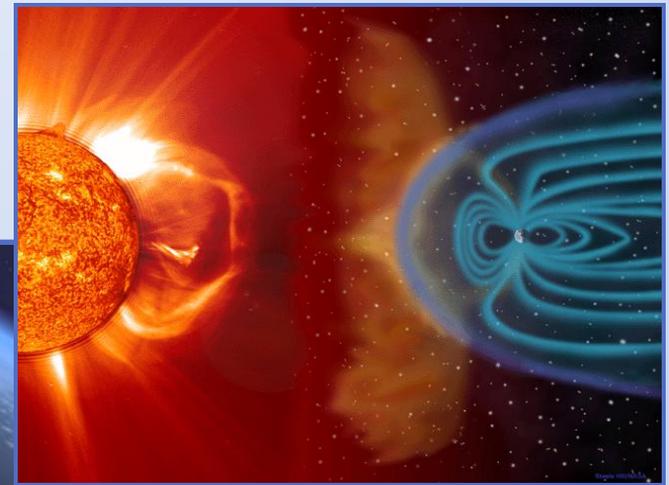
- \$40 Billion Yearly Cost to U.S.
- Weather Responsible for 2/3 Delays



A Changing World

Weather Impacts on Sectors: Technological Dependence

- **Threat: Space Weather impacts critical infrastructure and national security (power grids, communications, air travel, satellites)**
 - Expect vulnerabilities to grow with growing technological advances
 - Next solar maximum expected in 2013



Building a Weather Ready Nation

Improved forecasts

- Have improved hurricane tracking and lead times for tornadoes, flash floods
- Have improved seasonal predictions – El Niño and La Niña Patterns
 - Midwest spring flood outlooks
 - Texas drought

Building a Weather Ready Nation

Improving our Capabilities

- Computer modeling
- Scientific research
- Environmental observations, including weather satellites
- Our people –providing forecasts, warnings, and decision assistance

Building a Weather Ready Nation

Managing Water

- **Threat: Too much, Too little, Poor Quality**
- **Goals:**
 - Improve Nation's ability to manage water resources
 - Reduce economic losses due to floods and droughts
 - Increase economic benefits from water forecasts and information
- **What we're doing**
 - Core Partnerships
 - Spring flood outlooks enabled communities to prepare
 - FEMA and Red Cross pre-positioned relief assets



Building a Weather Ready Nation

NWS Contributions



Building a Weather Ready Nation

National Dialogue

- We can accomplish more through partnerships
- Weather-Ready Nation Requires Involvement of Entire Society



Building a Weather Ready Nation

What You Can Do

- Establish strong weather-information presence in your organization
- Join National Dialogue and educate employees about weather
- Help us to save lives and protect livelihoods